IN THE CLAIMS

1-17. (Canceled)

18. (Currently Amended) A method of producing and treating a sheet suited to be used as a component or as a part of a component in a fuel assembly for a nuclear light water boiling water reactor, which method comprises the following steps:

a) producing a sheet of a Zr-based alloy by forging, hot rolling and cold rolling in a suitable number of steps, wherein said alloy contains at least about 96 weight percent Zr;

b) carrying out one of an $\alpha+\beta$ quenching and a β quenching of the sheet when the sheet has been produced to a thickness which is one of equal to the final thickness of the finished sheet and approximately equal to the final thickness of the finished sheet;

c) heat treating of the sheet in the α-phase temperature range of said alloy, wherein step c) is carried out after steps a) and b) have been carried out, and wherein

the sheet is stretched during the heat treatment according to step c);

wherein said stretching and said heat treatment during step c) are carried out in a continuous oven process;

wherein said stretching is carried out such that the sheet directly after having gone through the stretching has a remaining elongation compared to the state of the sheet immediately before the stretching;

wherein said remaining elongation is between about 0.1% and about 7%; and

wherein said component defines a longitudinal direction which, when the component is used in said fuel assembly, is at least substantially parallel to a longitudinal direction of the fuel assembly and wherein said stretching of the sheet is carried out in a direction which corresponds to the longitudinal direction of said component for which the sheet is intended.

19. (Previously presented) A method according to claim 18, wherein step b) is a β quenching.

20. (Previously presented) A method according to claim 18, wherein said stretching is carried out at a temperature of at most the temperature which constitutes the highest

temperature in the α-phase temperature range of the alloy and at least at the temperature which is about 70% of said highest temperature in °K.

21. (Previously presented) A method according to claim 20, wherein ~~about~~ said stretching is carried out at a temperature which is between about 80% and about 98% of said highest temperature in °K.

22. (Cancelled)

23. (Previously presented) A method according to claim 18, wherein said stretching is carried out such that said elongation is longer than a critical degree of deformation of the alloy.

24-30. (Cancelled)

31. (Currently amended) A method of producing and treating a sheet suited to be used as a component or as a part of a component in a fuel assembly for a nuclear light water boiling water reactor, which method comprises the following steps:

a) producing a sheet of a Zr-based alloy by forging, hot rolling and cold rolling in a suitable number of steps, wherein said alloy contains at least about 96 weight percent Zr;

b) carrying out one of an α+β quenching and a β quenching of the sheet when the sheet has been produced to a thickness which is one of equal to the final thickness of the finished sheet and approximately equal to the final thickness of the finished sheet;

c) heat treating of the sheet in the α-phase temperature range of said alloy, wherein step c) is carried out after steps a) and b) have been carried out, and wherein the sheet is stretched during the heat treatment according to step c);

wherein said stretching and said heat treatment during step c) are carried out in a continuous oven process;

wherein said stretching is carried out such that the sheet directly after having gone through the stretching has a remaining elongation compared to the state of the sheet immediately before the stretching; and

wherein said remaining elongation is between about 0.2% and about 4%; and

wherein said component defines a longitudinal direction which, when the component is used in said fuel assembly, is at least substantially parallel to a longitudinal direction of the fuel assembly and wherein said stretching of the sheet is carried out in a direction which corresponds to the longitudinal direction of said component for which the sheet is intended.